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The dermatologists' role in managing psoriatic arthritis: results of a Swiss Delphi exercise intended to improve collaboration with rheumatologists

Boehncke, Wolf-Henning ; Anliker, Mark David ; Conrad, Curdin ; Dudler, Jean ; Hasler, Fritz ; Hasler, Paul ; Häusermann, Peter ; Kyburz, Diego ; Laffitte, Emmanuel ; Michel, Beat A ; Möller, Burkhard ; Navarini, Alexander A ; Villiger, Peter M ; Yawalkar, Nikhil ; Gabay, Cem

Abstract: BACKGROUND Psoriatic arthritis (PsA) substantially impacts the management of psoriatic disease. **OBJECTIVE** This study aimed to generate an interdisciplinary national consensus on recommendations of how PsA should be managed. **METHODS** Based on a systematic literature search, an interdisciplinary expert group identified important domains and went through 3 rounds of a Delphi exercise, followed by a nominal group discussion to generate specific recommendations. **RESULTS** A strong consensus was reached on numerous central messages regarding the impact of PsA, screening procedures, organization of the interaction between dermatologists and rheumatologists, and treatment goals. **CONCLUSION** These recommendations can serve as a template for similar initiatives in other countries. At the same time, they highlight the need to take into account the impact of the respective national health care system.

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The Dermatologists' Role in Managing Psoriatic Arthritis: Results of a Swiss Delphi Exercise Intended to Improve Collaboration with Rheumatologists

Wolf-Henning Boehncke^a Mark David Anliker^c Curdin Conrad^d
Jean Dudler^e Fritz Hasler^f Paul Hasler^g Peter Häusermann^h Diego Kyburzⁱ
Emmanuel Laffitte^a Beat A. Michel^j Burkhard Möller^l Alexander A. Navarini^k
Peter M. Villiger^l Nikhil Yawalkar^m Cem Gabay^b

Departments of ^aDermatology and ^bRheumatology, University Hospitals, Geneva, ^cDepartment of Dermatology, Cantonal Hospital, St. Gallen, ^dDepartment of Dermatology, Centre Hospitalier Universitaire Vaudois, Lausanne, ^eDepartment of Rheumatology, HFR Fribourg, Hôpital Cantonal, Fribourg, ^fPrivate practice, Chur, ^gDepartment of Rheumatology, Cantonal Hospital, Aarau, Departments of ^hDermatology and ⁱRheumatology, University Hospital, Basel, Departments of ^jRheumatology and ^kDermatology, University Hospital, Zurich, and Departments of ^lRheumatology and ^mDermatology, University Hospital, Bern, Switzerland

Key Words

Biologics · Epidemiology · Delphi process · Methotrexate · Psoriasis · Psoriatic arthritis · Rheumatology · Systemic therapy

Abstract

Background: Psoriatic arthritis (PsA) substantially impacts the management of psoriatic disease. **Objective:** This study aimed to generate an interdisciplinary national consensus on recommendations of how PsA should be managed. **Methods:** Based on a systematic literature search, an interdisciplinary expert group identified important domains and went through 3 rounds of a Delphi exercise, followed by a nominal group discussion to generate specific recommendations. **Results:** A strong consensus was reached on numerous central messages regarding the impact of PsA, screening procedures, organization of the interaction between dermatolo-

gists and rheumatologists, and treatment goals. **Conclusion:** These recommendations can serve as a template for similar initiatives in other countries. At the same time, they highlight the need to take into account the impact of the respective national health care system.

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Introduction

With a prevalence of around 2% in Caucasian populations, psoriasis (PsO) is among the most common diseases in dermatological practice [1]. In recent years, the fact that numerous other important diseases are associated with PsO, being more common among PsO patients than expected, is increasingly acknowledged [2]. Psoriatic arthritis (PsA) plays a particularly important role in this regard. PsA is a distinct type of spondyloarthritis,

characterized by an involvement of the peripheral joints, axial skeleton, tendons or entheses in the presence of PsO [3, 4]. PsA substantially increases the disease burden of PsO patients [5]. In the majority of patients, PsA develops many years after the onset of PsO [3]. Clinical decision making is substantially affected, as PsO patients usually need systemic therapies in the case of joint involvement, even if their skin symptoms are rather limited and potentially manageable with topical therapies. In case of severe PsO, the presence of PsA might still affect the choice of systemic therapy.

Despite the major clinical relevance of PsA, there are few guidelines or recommendations on its management. Several dermatology and rheumatology societies have issued documents on its therapy [6, 7], some of them focusing exclusively on the use of biologics [8, 9]. The Group for Research and Assessment of Psoriasis and Psoriatic Arthritis was among the first to develop comprehensive treatment recommendations across all major clinical manifestations of PsO and PsA, addressing all therapeutic options available at the time [10]. Furthermore, there are reviews that identify and summarize clinically important aspects beyond therapy, such as the need to routinely screen PsO patients for signs and symptoms of PsA [11, 12]. It is only now that recommendations on the joint management of PsO and PsA by dermatologists and rheumatologists are being developed in a well-structured manner, discussing not only therapy, but also diagnostics and collaborative long-term management [13].

Here, we report on the outcome of a Swiss national initiative, aiming at generating recommendations sufficiently specific to be helpful in daily clinical practice and supporting high-quality long-term management of PsA patients.

Materials and Methods

Literature Search

A PubMed search was performed in March 2013, using the terms 'psoriasis', 'psoriatic arthritis', 'guideline', 'recommendation' and 'review'. The search covered articles published in English, German and French between January 1, 2000, and March 15, 2013. Additional potentially important reports were identified from the reference lists of seminal reviews.

Experts

The expert group comprised 8 dermatologists and 8 rheumatologists both from academic as well as non-academic institutions within Switzerland; all of these participants are regularly involved in the management of PsA patients. Out of this group, 2 dermatologists and 2 rheumatologists formed a working group, coordinating the process of consensus building.

Development of Recommendations

The above-mentioned working group performed the literature search and identified potential domains of interest. At a first face-to-face meeting (May 2013), the number of relevant domains was reduced, and a list of 10 key questions was developed. Subsequently, each working group member generated suggestions for recommendations on several relevant domains, based on the best available evidence identified as a result of the literature search. Number and wording of the recommendations were finalized at a second face-to-face meeting in June 2013. From July to September 2013, 3 rounds of a Delphi exercise were completed. Recommendations were finalized during a formal group discussion in September 2013, led by an independent professional moderator (D. Froidevaux, Froidevaux & Partner GmbH, Zurich, Switzerland).

Defining Consensus

The Delphi questionnaire offered 3 grades of disagreement ('strongly disagree', 'disagree', 'slightly disagree') plus 3 grades of agreement ('slightly agree', 'agree', 'strongly agree'). Three rounds of questioning were performed, feeding back the results of each previous voting to the participants prior to the subsequent round. A vote was considered to reflect 'consensus' if >50% of the participants voted 'strongly disagree'/'disagree' or 'agree'/'strongly agree'. A vote was considered to reflect 'strong consensus' if >80% of the participants voted 'strongly disagree'/'disagree' or 'agree'/'strongly agree'. In the Results section below, the Delphi statements reaching strong consensus are documented, and the evidence on which this is based is summarized in figure 1.

Results

Significance of PsA

Delphi statement: The prevalence of PsA has been underestimated in the past (91% voted 'agree' or 'strongly agree'). This vote is based on epidemiological studies. While older publications indicated rather low prevalence rates [3], more recent investigations have revealed a much higher prevalence, along with a trend to underdiagnose PsA in dermatology clinics [14–16].

Delphi statement: PsA contributes significantly to the morbidity of PsO patients (100% voted 'agree' or 'strongly agree'). The burden of PsA is now widely acknowledged [17]. PsA, compared with PsO alone, was associated with a significantly lower quality of life as assessed with the EuroQol 5-Dimension or the Health Assessment Questionnaire and with more fatigue as assessed with the Fatigue Severity Scale [18, 19].

Strategic Goal of Managing PsA

Delphi statement: The diagnosis of PsA needs to be established as early as possible (92% voted 'agree' or 'strongly agree'). The recommendation to undertake all efforts to diagnose PsA early is based on the observation

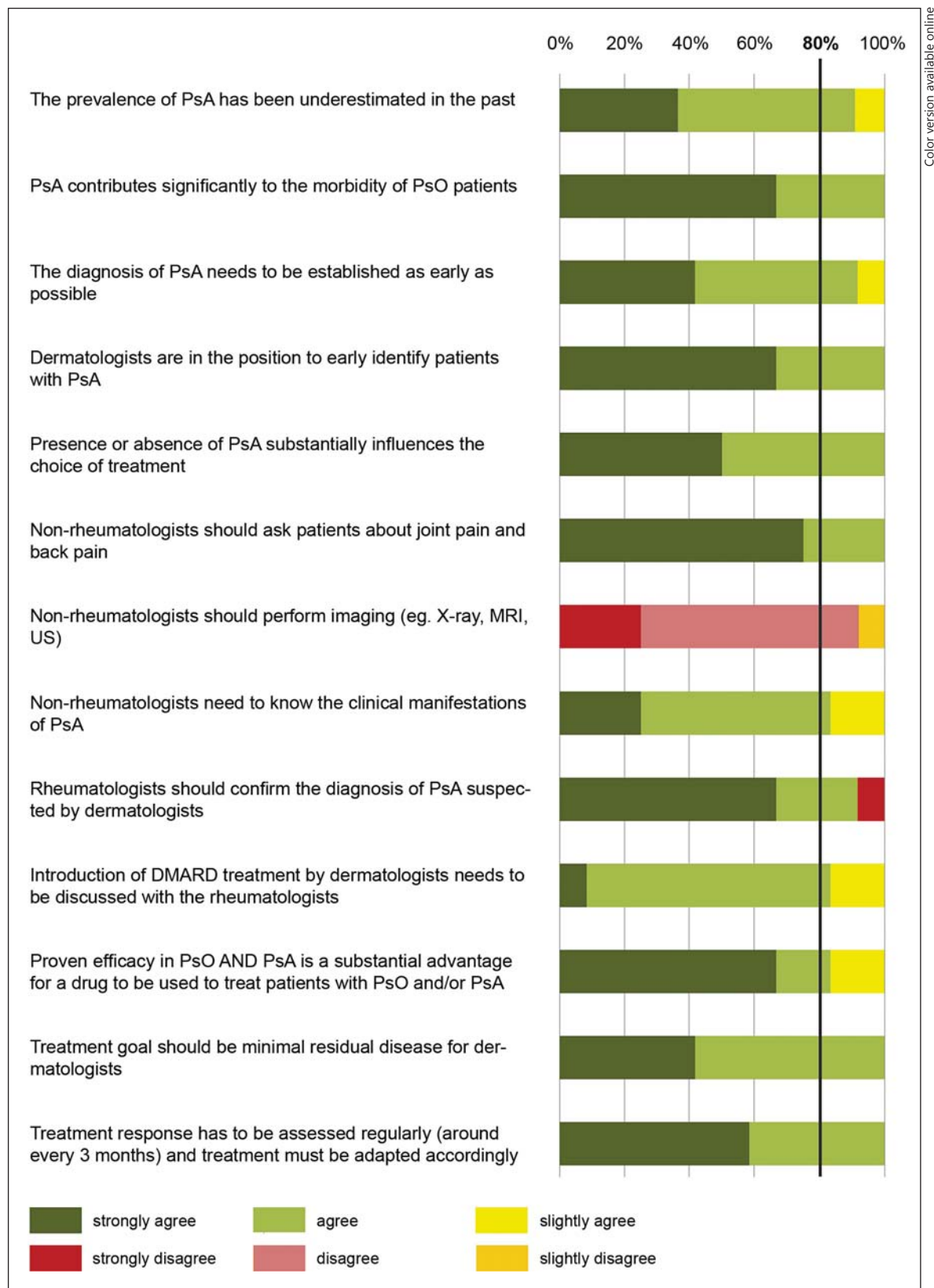


Fig. 1. Synopsis of voting results on Delphi statements where a strong consensus was reached.

that about half of the PsA patients show a chronic progressive course [20]. Moreover, there is emerging evidence that early intervention yields better results [21, 22].

Delphi statement: Dermatologists are in the position to early identify patients with PsA (100% voted 'agree' or 'strongly agree'). The important role of dermatologists as sentinels when it comes to the early detection of PsA is evident, given that PsA usually occurs many years after the onset of PsO [3, 4].

Delphi statement: Presence or absence of PsA substantially influences the choice of treatment (100% voted 'agree' or 'strongly agree'). The guidelines and recommendations mentioned above underline the necessity for a systemic therapy in almost all cases of PsA independent of the extent of PsO as well as the need to use, notably, tumour necrosis factor α -inhibiting drugs fairly early to treat in particular clinical manifestations such as axial disease, enthesitis and dactylitis [7, 10]. All this highlights the prominent role of PsA in choosing the optimal therapy.

Establishing the Diagnosis of PsA

Delphi statement: Non-rheumatologists should ask PsO patients about joint and back pain (100% voted 'agree' or 'strongly agree'). Tender and/or swollen joints are clinical hallmarks of inflammatory joint diseases. Back pain, although a relatively non-specific symptom, often points towards axial involvement as a common feature of PsA [23].

Delphi statement: Non-rheumatologists need to know the clinical manifestations of PsA (83% voted 'agree' or 'strongly agree'). PsA, like PsO, shows a wide range of clinical manifestations. These include the involvement of the peripheral joints, axial skeleton, enthesitis, dactylitis and uveitis. Awareness of these clinical signs helps to recognize PsA [24].

Delphi statement: Non-rheumatologists should not perform imaging, such as X-ray, magnetic resonance imaging or ultrasound (92% voted 'disagree' or 'strongly disagree' on the initial proposal that non-rheumatologists should do so). Although several dermatology groups reported on ultrasound and PsA [25], this expertise is rather limited among non-specialists.

Management of PsA

Delphi statement: Rheumatologists should confirm the diagnosis of PsA suspected by non-rheumatologists (92% voted 'agree' or 'strongly agree'). Like PsO, PsA is an incurable and often severe disease as a substantial percentage of patients show a chronic progressive course [20]. The diagnosis therefore needs to be well established.

Delphi statement: Introduction of disease-modifying antirheumatic drug (DMARD) treatment by dermatologists needs to be discussed with the rheumatologists (83% voted 'agree' or 'strongly agree'). The efficacy of DMARDs on skin and joint symptoms is quite diverse: while methotrexate is considered to be fairly effective on PsO [26], leflunomide – which is regarded as an effective therapy for PsA – has shown insufficient efficacy on skin symptoms to warrant its use in dermatology [27]. Moreover, DMARDs have shown insufficient efficacy in certain common clinical manifestations of PsA, namely axial involvement, dactylitis and enthesitis [28]. The resulting treatment algorithm proposed by rheumatologists is complex [7] and the treatment should therefore be tailored according to the leading symptoms in each individual case.

Delphi statement: Dermatologists and rheumatologists need to jointly follow PsA patients. This concept provided the basis for the initiative reported here and was therefore not voted upon. All participants opted for a flexible rather than a predefined cooperation between the specialized fields, giving priority to the clinical course and emerging issues on the patients' side.

Delphi statement: Proven efficacy in PsO and PsA is a substantial advantage for a drug to be used in treating patients with PsO and/or PsA (84% voted 'agree' or 'strongly agree'). Drugs that allow to treat many different clinical manifestations of PsO and/or PsA help to reduce the number of drugs a patient needs to take. This is of direct clinical relevance, as comorbidity and resulting comedication is a common problem in PsO patients and minimizing the likelihood for drug-drug interactions is therefore regarded as important [2, 26]. Moreover, simplifying the treatment regimen is likely to increase patient adherence [29].

Delphi statement: The treatment goal should be minimal residual disease (100% voted 'agree' or 'strongly agree'). Minimal residual disease is defined by the Outcome Measures in Rheumatology group as 'a state which is deemed a useful target of treatment by both physician and patient, given current treatment possibilities and limitations' [30]. Specific criteria have been developed to define minimal disease activity in PsA [31] and have been subsequently validated [32]. PsA patients treated with this goal in mind commonly show less structural joint damage than those receiving standard care [33].

Delphi statement: Treatment response has to be assessed regularly (around every 3 months), and treatment must be adapted accordingly (100% voted 'agree' or 'strongly agree'). Disease assessment is routine in rheu-

matology, while dermatology lacks this ‘culture of assessment’. Only recently did a group of European experts suggest defining treatment goals for PsO and regularly assessing the extent to which these are met through treatment, advocating timely adaptations if needed [34]. The above Delphi statement underlines the need for such a structured approach, not only with regard to PsA, but also for PsO.

Discussion

Here, we summarize Delphi statements on the impact of PsA and its (early) diagnosis and management. These Delphi statements were developed in a structured way and yielded a strong consensus, defined as $\geq 80\%$ agreement of the working group (fig. 1). Those issues where no consensus was reached were useful to identify areas requiring further research, as there was either a lack of evidence or newer findings that might not be generally applicable yet.

For example, the group underlined the importance of PsA as a comorbidity of PsO not only because of its (higher than previously estimated) prevalence, but also because of its impact on the burden of disease. At the same time, the group did not agree on the impact of PsA on PsO patients’ mortality. Although a recent systematic review pointed towards an increased cardiovascular risk among PsA patients [35], we found it difficult to attribute this to PsA as such rather than to coexisting PsO, known to exhibit increased cardiovascular mortality [36], or to the therapeutic measures taken. Another example is the concept of a window of opportunity, which is well established for rheumatoid arthritis, where early effective therapy results in a superior long-term outcome [37]. For PsA, there is preliminary evidence that therapies might be more effective in patients with a shorter disease duration [22]; but data on long-term outcomes are not yet available. The observation of Haroon et al. [38] that even a 6-month delay from symptom onset to the first visit with a rheumatologist contributes to the development of peripheral joint erosions and worse long-term physical function points into the same direction.

A clinically most important point is the question of how to diagnose PsA, especially when this is being done by dermatologists. There was no strong consensus within this group in favour of screening questionnaires, although several had been developed and validated exactly for that purpose, all of them claiming very good sensitivity in the order of 90% [38]. However, subsequent comparative

studies, using several well-established questionnaires in different settings, were inconsistent [15, 39]. Therefore, the working group suggested to systematically ask patients about joint and back pain instead.

Similarly important is the question of whether or not there is a gold standard for treating PsA. For decades, methotrexate has been widely used as the DMARD of choice for treating PsA. Recently, a large randomized placebo-controlled trial found no evidence for the most frequently applied weekly oral methotrexate improving synovitis; the authors raised the question about its classification as a DMARD [40]. This publication sparked a lively discussion in the scientific literature, and our working group did not come to a conclusive vote on this issue either. The Delphi statement ‘methotrexate remains the gold standard for peripheral PsA’ was voted ‘agreed’ by 33%, ‘slightly agreed’ by 33%, ‘slightly disagreed’ by 17%, ‘disagreed’ by 8% and ‘strongly disagreed’ by another 8%. This underlines that rheumatologists and dermatologists need to continuously discuss in detail important studies on key aspects of managing PsO and PsA.

One strength of the initiative presented here is the process by means of which the consensus statements were obtained. An interdisciplinary approach was ensured from the very beginning through the establishment of a working group of 2 rheumatologists and 2 dermatologists assigned to identify and discuss relevant domains, based on a comprehensive literature search. Three subsequent Delphi rounds plus a nominal group discussion led by an independent professional moderator made sure every expert was heard and provided his input on the final result. The statements reaching strong consensus are thus trustworthy.

One limitation of this initiative is that the Delphi statements reflect the beliefs of a group of experts that took into account the Swiss health care system. This system is characterized by an equal number of rheumatologists and dermatologists, each specialized field being represented by a sufficiently high number of physicians to ensure timely consultation for every Swiss citizen. This is in contrast to most other countries, where dermatologists outnumber rheumatologists by far [5]. The resulting implications include different priorities, especially with regard to the screening and transfer of PsA patients: while in most countries the screening physician’s (often the dermatologist’s) task includes attempts to ‘protect’ rheumatologists from patients with non-inflammatory joint disease (e.g. osteoarthritis or fibromyalgia), Swiss rheumatologists are in the position to confirm (or correct) the transferring non-rheumatologist’s diagnosis, also in the

case of non-inflammatory joint disease (hence the consensus on asking relatively poorly discriminating questions on joint and back pain). This implies that in most health care systems, specificity remains an important criterion for PsA screening tools such as questionnaires, while this seems less of an issue in systems like the Swiss health care system. However, considerations regarding the respective health care system where any given guideline or recommendation should be implemented are crucial to guarantee feasibility. Looking at the trend to publish more and more international recommendations and even guidelines, we are worried that in an attempt to be 'universally applicable', the respective recommendations become too general and thus less and less helpful.

Taken together, the Delphi statements summarized here were primarily developed with the intention to help Swiss rheumatologists and dermatologists to jointly support their PsA patients in the best possible way. However, practicing physicians outside Switzerland might find several of the Delphi statements helpful for their own work.

Last but not least, colleagues may feel encouraged to reflect on the benefits and limitations of international recommendations and guidelines.

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